

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method for continuous production of a hydrate-containing material comprising the steps of:

~~delivering~~ flowing a fluid containing hydrate-forming species to fluid through a pressurized, temperature controlled, continuous-flow reactor as a continuously flowing fluid;

~~delivering~~ injecting water to said pressurized, temperature controlled, continuous-flow reactor into said continuously flowing hydrate-forming fluid, said water injected as a dispersed fluid at a Reynolds number characterizing the turbulent spraying regime to produce an emulsion of the two fluids; and

~~mixing said fluid containing hydrate-forming species with said water within said pressurized, temperature controlled,~~ allowing said emulsion to flow through said continuous-flow reactor until a consolidated solid-like hydrate/fluid/water stream is formed.

2. (Currently Amended) The method of claim 1 wherein said pressurized, temperature controlled, continuous-flow reactor is a pipe, ~~said water is injected into said pipe, and said consolidated hydrate/fluid/water stream flows from said pipe following said mixing step.~~

3. (Currently Amended) The method of claim 2 wherein said pipe includes static mixer ~~blades~~ baffles.

4. (Currently Amended) The method of claim 1 wherein said continuous-flow reactor also includes:

means for controlling the flow rate of said ~~fluid containing~~ hydrate-forming species fluid into said continuous-flow reactor;

means for ~~introducing and~~ controlling the flow rate of said water to said ~~fluid containing~~ hydrate-forming species fluid in said continuous-flow reactor;

temperature control means for controlling the temperature of said continuous-flow reactor;
and

a pressure control device for controlling the pressure within said continuous-flow reactor.

5. (Currently Amended) The method of claim 4 wherein said means for controlling the flow rate of said ~~fluid-containing~~ hydrate-forming species fluid is a mass flow controller.

6. (Currently Amended) The method of claim 4 wherein said means for ~~introducing and~~ controlling the flow rate of said water to said ~~fluid-containing~~ hydrate-forming species in ~~said continuous-flow reactor~~ fluid is a pump equipped with a flow controller.

7. (Currently Amended) The method of claim 4 wherein said means for ~~introducing and~~ controlling the flow rate of said water to said ~~fluid-containing~~ hydrate-forming species in ~~said continuous-flow reactor~~ fluid is a jet pump.

8. (Currently Amended) The method of claim 4 wherein said continuous-flow reactor further includes static mixing ~~blades~~ baffles for mixing said ~~fluid-containing~~ hydrate-forming species fluid and said water.

9. (Currently Amended) The method of claim 4 wherein said continuous-flow reactor further includes electrically powered mixing blades for mixing said ~~fluid-containing~~ hydrate-forming species fluid and said water.

10. (Currently Amended) The method of claim 1 wherein said hydrate-forming fluid is liquid CO₂, and said consolidated solid-like hydrate/fluid/water stream is a consolidated CO₂-hydrate/CO₂-liquid/water stream.

11. (New) A method for continuous production of a hydrate-containing material comprising the steps of:

flowing water through a pressurized, temperature controlled, continuous-flow reactor as a continuously flowing fluid;

injecting a hydrate-forming fluid into said continuously flowing water, said hydrate-forming fluid injected as a dispersed fluid at a Reynolds number characterizing the turbulent spraying regime to produce an emulsion of the two fluids; and

allowing said emulsion to flow through said continuous-flow reactor until a consolidated solid-like hydrate/fluid/water stream is formed.